

## SECTOR ASSESSMENT (SUMMARY): EDUCATION

### Sector Road Map

#### 1. Sector Performance, Problems, and Opportunities

1. Despite growing at an impressive annual average rate of 7.7% during 2007–2017, Bhutan's economy has not been able to generate adequate jobs, as economic growth has been largely driven by the capital-intensive hydropower sector. The country faces the paradox of youth unemployment coexisting with skill shortages in key industries. Youth unemployment is high and increasing. In 2016, the rate of youth unemployment increased to 13.2% from 10.7% in the previous year, while the national unemployment rate was 2.1%.<sup>1</sup> At the same time, skills shortages are a critical constraint for the growth of the private sector and diversification of the economy.<sup>2</sup> Bhutan's National Workforce Plan estimates over 78,000 jobs will be generated by the construction, tourism, and manufacturing sectors during 2016–2022.<sup>3</sup> In 2017, over 14,000 fresh secondary and tertiary graduates entered the labor market. Equipping these new graduates with market-oriented skills needed by industry will address this paradox.

2. The skills development system in Bhutan faces challenges in access, quality, relevance, and management capacity in technical and vocational education and training (TVET) institutions and schools. In 2016, only 6.9% of grade 10 students opted for TVET. The current annual intake capacity in the public technical training institutes (TTIs) is only about 635 students. There is a need for investment in infrastructure and facilities in the TTIs to replace outdated and dysfunctional equipment. The trades in TTIs need diversification beyond traditional areas such as electrical, mechanical, automobile, and construction to emerging occupations requiring skilled workers such as information technology and information technology-enabled services, food and beverage, tourism and hospitality, media and communication, and food processing. Awareness of school students on diverse, modern occupations is limited, and they therefore mainly opt for civil service jobs. Quality of TVET is also lacking. Trainers lack capacities, industry experience, and professional development. Much needs to be done in schools, as they are preponderantly geared to academic education without sufficient preparation for the world of work. Labor market surveys by the Ministry of Labor and Human Resources reveal that youth do not possess the foundational skills that employers are looking for, leading to extensive skills mismatches. Strengthening management and governance, including partnerships with private sector training providers, is needed to deliver market-relevant courses.

3. Skills development to meet the unmet demand for middle and advanced skills is necessary; without it, the continued advancement of Bhutan as a lower middle-income economy will be constrained. Skills development will also help the youth of Bhutan to secure sustainable jobs that provide the basis for poverty reduction and inclusive growth. The government is proactively tackling the issue of unemployment among youth, who are currently recognized as a vulnerable group in Bhutan.<sup>4</sup>

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<sup>1</sup> Government of Bhutan, Ministry of Labor and Human Resources (MOLHR). 2016. *Labor Force Survey Report 2016*. Thimphu.

<sup>2</sup> Asian Development Bank (ADB). 2013. *Bhutan: Critical Development Constraints*. Manila.

<sup>3</sup> Government of Bhutan, MOLHR. 2016. *National Workforce Plan, 2016–2022: Tourism, Construction and Production Sector*. Thimphu.

<sup>4</sup> Government of Bhutan, Gross National Happiness Commission Secretariat. 2016. *Bhutan Vulnerability Baseline Assessment 2016*. Thimphu.

## 2. Government's Sector Strategy

4. The government seeks to transform the skills development system in the country and is committed to key reforms. The TVET Blueprint, 2016–2026 articulates reforms and outlines a four-pillar strategy that includes expansion of TVET provision, improvement of quality, improvement of relevance to market needs, and strengthened TVET governance. The Twelfth Five-Year Plan, 2018–2023 places strong emphasis on skills development for jobs.<sup>5</sup> The Education Blueprint, 2014–2024 envisions improving quality of school education, including strengthening TVET in schools.<sup>6</sup> The creation of alternative education pathways for students in grades 9–12 is expected to provide a more diversified range of learning opportunities to pursue vocational training according to their interests, skills, and aptitude.

5. In TVET, the main thrust areas of the government are as follows:

- (i) **Expand capacity for skills development to reduce unemployment.** The Government of Bhutan has committed to reducing unemployment and creating a trained workforce to meet the needs of the private sector. In 2017, about 14,000 new secondary and tertiary graduates entered the workforce. An estimated 110,000 Bhutanese will be entering the labor market from 2016 to 2026.<sup>7</sup> There are not enough skills development programs to absorb the increasing numbers of high school graduates—over 11,000 students pass grade 10 every year. Equipping youth with employable skills is a pressing development challenge. Hence scaling up TVET provision is a key priority outlined in the Twelfth Five-Year Plan.
- (ii) **Increase Ministry of Labor and Human Resources allocation.** In the Twelfth Five-Year Plan, the Gross National Happiness Commission plans to substantially increase the budget allocation for the Ministry of Labor and Human Resources (MOLHR) compared to the Eleventh Five-Year Plan i.e., Nu2,800 million allocation in 2018–2023, constituting 2.4% of the total Twelfth Five-Year Plan outlay, compared to Nu2,000 million allocated in the Eleventh Five-Year Plan, which was 1.8% of the total Eleventh Five-Year Plan outlay.
- (iii) **Balance general education and technical and vocational education and training.** The government has an ambitious target of nearly tripling the proportion of higher secondary students enrolling in TVET from 6.9% in 2016 to 20% by 2024. This seeks to address the need for a better skilled workforce entering the labor market and to create a talent pool of nationally and globally competitive youth.
- (iv) **Upgrade skills levels in technical and vocational education and training institutions.** Most training offered is at levels ranging from semiskilled to master craftsperson. The government plans to introduce diploma courses for the first time in TTIs to help enhance the value chain in the industry and service sectors and support capable Bhutanese to take up well-paid jobs currently occupied by foreign nationals.
- (v) **Diversify course offerings.** The government aims to diversify course offerings in line with the objective of economic diversification outlined in the Economic Development Policy of 2016.<sup>8</sup> Such diversification will help address the need for

<sup>5</sup> Government of Bhutan, Gross National Happiness Commission, 2016. *Guideline for Preparation of Twelfth Five-Year Plan, 2018–2023*. Thimphu.

<sup>6</sup> Government of Bhutan, Ministry of Education, 2014. *Bhutan Education Blueprint 2014-2024*. Thimphu.

<sup>7</sup> Government of Bhutan, MOLHR. 2016. *TVET Blueprint, 2016–2026*. Thimphu.

<sup>8</sup> Government of Bhutan, 2016. *Economic Development Policy*. Thimphu.

skilled workers in emerging occupations while also matching the aspirations of youth for employment in emerging sectors.

- (vi) **Establish partnerships with the private sector.** A key objective is to strengthen the role of the private sector in delivering skills training. Employment-linked new partnership agreements will be put in place for skills development in diversified areas not covered by TTIs. The government also plans to redress the weak linkages between industry and TVET institutes and enhance on-the-job training and job placement services.

6. In school education, the government's main thrust areas are as follows:

- (i) In order to provide improved pathways in education, the government proposes to initiate the premier school concept in different disciplines such as science, technology, engineering, and mathematics; cultural studies; and TVET. As a pilot exercise, seven secondary schools will be developed as TVET premier schools with links to TTIs. TVET labs and equipment will be provided with a structured curriculum and trained junior instructors. The schools will provide opportunity to students in grades 9–12 to pursue vocational training in 10 trades.
- (ii) A concept paper has been developed for TVET in the school system.<sup>9</sup> The Ministry of Education, the MOLHR, and the Royal Education Council have entered into an updated memorandum of understanding for implementing TVET in the schools. This is a far-reaching measure that will balance academic general education with vocational skills and will help secondary school students to become “market-ready”.
- (iii) Secondary schools will offer pre-vocational orientation, and vocational clubs which will equip lower secondary school students with an introduction to TVET and entrepreneurial skills. Career guidance and counseling services will help students make informed choices about different education pathways.
- (iv) Strengthening of information and communication technology (ICT) integration into the school math, science, and vocational electives curriculum and development of foundational skills are core thrusts of the Education ICT Master Plan and ICT school curriculum for students to pursue potential postsecondary educational and work opportunities with relevant ICT knowledge and skills.<sup>10</sup>

7. The project will include institutional long-term and short-term training as well as on-the-job training and apprenticeship programs. A key requirement for a better-performing TVET system is to strengthen industry linkages, which the project will undertake. Project interventions will be pro-poor and gender sensitive, with the aim of increasing TVET opportunities for improved job prospects for poor youth, and breaking gender stereotypes in skills development. The government has incorporated strong equity dimensions relating to women, youth with disabilities, and disadvantaged youth for skills development opportunities. Training programs will conform to the standards set in the Bhutan Vocational Qualifications Framework and adhere to quality assurance mechanisms. International partnerships will be pursued to align with global trends and augment institutional and human resource capacities in TVET.

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<sup>9</sup> Government of Bhutan, Ministry of Education. 2018. *Technical and Vocational Education in the School System: An Alternative Pathway to Education (A Concept Paper)*. Thimphu.

<sup>10</sup> Government of Bhutan, Ministry of Education. 2014. *Education ICT Master Plan, 2014–2018*. Thimphu.

### 3. Asian Development Bank Sector Experience and Assistance Program

8. The Asian Development Bank (ADB) has long-standing experience in TVET and education through technical assistance and grant and loan projects.<sup>11</sup> ADB financed the establishment of six TTIs, forming the backbone of public sector TVET institutions, under the Basic Skills Development Project (BSDP) from 2001 to 2006. The BSDP streamlined management and governance of TVET, including formation of the MOLHR. The validation report by ADB's Independent Evaluation Department noted that the BSDP was instrumental in skilling young labor market entrants to compete with expatriate labor.<sup>12</sup> Areas for improvement identified included the need for course diversification, diploma courses, and institutionalized industry partnerships, which will be included in this project. Through the Rural Skills Development Project (2007–2010), ADB supported new earning opportunities for the rural poor during off-farm seasons. ADB supported the piloting of ICT-based learning in eight schools to improve mathematics learning.<sup>13</sup> ADB technical assistance during 2014–2016 was instrumental in developing the TVET Blueprint, which provides the vision for TVET reforms and targets, on which the project is based.

9. Value added by ADB's assistance. ADB is well placed to build on past collaborations in TVET and school education. ADB's value addition will be (i) to help elevate standards in TTIs; (ii) to provide green technology equipment for the delivery of existing and new courses in the TTIs<sup>14</sup>; (iii) to assist the government in rebranding TVET courses to attract more youth, and modernizing teaching and training pedagogy; (iv) to strengthen private sector engagement in the delivery of courses that are in demand in the market; and (v) to demonstrate good practices in integrating TVET and career guidance in school education.

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<sup>11</sup> Related ADB support includes the following: ADB. 1990. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Kingdom of Bhutan for the Technical and Vocational Education and Training Project*. Manila; ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Bhutan for the Basic Skills Development Project*. Manila; ADB. 2010. *Grant Assistance Report: Proposed Administration of Grant to the Kingdom of Bhutan for the Upgrading Schools and Integrated Disaster Education Project*. Manila; ADB. 2014. *Technical Assistance to the Kingdom of Bhutan for Institutional Strengthening for Skills Development*. Manila; and ADB. 2007. *Grant Assistance Report: Proposed Grant Administration to the Kingdom of Bhutan for the Rural Skills Development Project*. Manila.

<sup>12</sup> ADB. 2010. *Completion Report: Basic Skills Development Project in Bhutan*. Manila; and Independent Evaluation Department. 2011. *Validation Report: Basic Skills Development Project in Bhutan*. Manila; ADB. The overall performance of the BSDP was rated *partly successful*, as some of the outputs were only partially achieved and the design of project management was fragmented.

<sup>13</sup> ADB. 2011. *Technical Assistance for Learning from e-Learning: Testing Intelligent Learning Systems in South Asia*. Manila.

<sup>14</sup> The project will provide green technology equipment such as Computer Numerical Control machines, three-dimensional workstations for simulation and virtual welders, that entail low consumption of electricity and raw materials. The simulators will supplement theoretical and classroom teaching prior to actual practice on real machines.

## Problem Tree for Education

